



## **NUCLEAR REGULATORY COMMISSION**

**[Docket No. 70-7005; NRC-2022-0093]**

### **Waste Control Specialists LLC**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental assessment and finding of no significant impact; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) in support of the NRC's consideration of a June 30, 2022, Waste Control Specialists LLC (WCS) request for a superseding Order to its current (2014) NRC Order (as supplemented by subsequent NRC letters to WCS from 2016 to 2022). In its letter, WCS requested authorization to (1) move the U.S. Department of Energy (DOE) Los Alamos National Laboratory (LANL) Waste at the WCS Site from its current location at the WCS Federal Waste Facility (FWF) disposal cell to another location at the WCS Site, the WCS Treatment, Storage, and Disposal Facility (TSDF) Bin Storage Area (BSA)-1 Enclosure, (2) prepare the LANL Waste in the WCS TSDF BSA-1 Enclosure for shipment (e.g. replace lifting straps for Standard Waste Boxes (SWBs), replace filter vents in SWBs, perform borescope in SWBs, take air samples from head space in SWBs), and (3) temporarily store the LANL Waste in the WCS TSDF BSA-1 Enclosure until the DOE ships the LANL Waste off the WCS Site to a future DOE determined location, which is currently expected to be either the DOE LANL or the DOE Waste Isolation Pilot Plant (WIPP) Facility.

**DATES:** The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2022-0093** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2022-0093**. Address questions about Docket IDs to Stacy Schumann; telephone: 301-415-0624; email: [Stacy.Schumann@nrc.gov](mailto:Stacy.Schumann@nrc.gov). For technical questions, contact the individual listed in the “For Further Information Contact” section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the “Availability of Documents” section.

- **NRC’s PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC’s PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** James Park, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-6954; email: [James.Park@nrc.gov](mailto:James.Park@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Introduction**

WCS operates a site in Andrews County, Texas, that is licensed to process and store certain types of radioactive material contained in low-level radioactive waste (LLRW) and mixed waste (MW) (waste that is both hazardous waste and LLRW). The WCS Site also disposes of hazardous and toxic waste. Under an Agreement authorized

by the Atomic Energy Act of 1954, as amended (AEA), the NRC can relinquish, and a state can assume, regulatory authority over radioactive material specified in an Agreement with NRC. In 1963, Texas entered into such an Agreement with the NRC's predecessor agency, the Atomic Energy Commission, and assumed regulatory authority over source material, byproduct material, and special nuclear material (SNM) under a critical mass. In 1982, the NRC and Texas amended the Agreement to permit Texas to continue to regulate byproduct material as defined in section 11e.(2) of the AEA (uranium mill tailings) in conformance with the requirements of section 274o. of the AEA.

On November 30, 1997, the State of Texas Department of Health (TDH) issued WCS a radioactive materials license (RML) to possess, treat, and store LLRW (RML R04971). In 1997, WCS began accepting Resource Conservation and Recovery Act (RCRA) and Toxic Substance Control Act wastes for treatment, storage, and disposal. Later that year, WCS received a license from the TDH for treatment and storage of MW and LLRW. The MW and LLRW streams may contain quantities of SNM. In 2007, RML R04971 was transferred to the Texas Commission on Environmental Quality (TCEQ). In September 2009, TCEQ issued RML R04100 to WCS for disposal of LLRW. In May 2013, R04971 was merged into license R04100 in amendment 22 to license R04100.

Section 70.3 of title 10 of *Code of Federal Regulations* (10 CFR), "License requirements," requires persons who own, acquire, deliver, receive, possess, use, or transfer SNM to obtain a license pursuant to the requirements of 10 CFR part 70, "Domestic Licensing of Special Nuclear Material." The licensing requirements in 10 CFR part 70 apply to persons in Agreement States possessing greater than critical mass quantities (Agreement States can regulate material below this quantity under their agreement), as defined in 10 CFR 150.11, "Critical Mass." Pursuant to 10 CFR 70.17(a), "the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest."

In September 2000, WCS requested an exemption from the licensing requirements in 10 CFR part 70. On November 21, 2001, the NRC issued an Order to WCS (2001 Order) granting an exemption to WCS from certain NRC regulations and authorizing WCS, under specified conditions, to possess waste containing SNM in greater quantities than specified in 10 CFR part 150, “Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters under Section 274,” at the WCS storage and treatment facility without obtaining an NRC license pursuant to 10 CFR part 70. The 2001 Order was published in the *Federal Register* on November 15, 2001 (66 FR 57489). Subsequent superseding orders were issued in 2004, 2009, and 2014. The 2014 Order is currently in effect.

The 2014 NRC Order to WCS contains conditions that allow WCS to possess and temporarily store DOE LANL Waste at two locations at the WCS Site, the FWF disposal cell and the WCS TSDF,<sup>1</sup> without obtaining an NRC part 70 license. The LANL Waste is transuranic waste with SNM that originated from LANL and was destined for disposal at the DOE Waste Isolation Pilot Plant Facility in New Mexico. The conditions in the 2014 Order were modified by five NRC letters to WCS dated September 23, 2016, September 26, 2017, December 19, 2018, December 7, 2020, and June 8, 2022.

By letter dated June 30, 2022, as supplemented by clarification calls, WCS requested a superseding order to: (1) move the DOE LANL Waste from the FWF to the WCS TSDF BSA-1 Enclosure, (2) prepare the LANL Waste in the WCS TSDF BSA-1 Enclosure for shipment (e.g. replace lifting straps for SWBs, replace filter vents in SWBs, perform borescope in SWBs, take air samples from head space in SWBs), and (3) temporarily store the LANL Waste in the WCS TSDF BSA-1 Enclosure until the DOE ships the LANL Waste off the WCS Site to a DOE determined location, which is currently expected to be either the DOE LANL or the DOE WIPP Facility.

To begin the activities necessary to move the LANL Waste from the FWF

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<sup>1</sup> For the purposes of the EA and FRN, “WCS TSDF” refers to the area on the WCS Site in Andrews County, Texas where WCS intends to perform the prepare for shipment activities and temporarily store the LANL Waste.

disposal cell to the WCS TSDF BSA-1 Enclosure, WCS would dismantle the shade structure in the FWF and remove the temperature monitoring leads to the 35 Modular Concrete Canisters (MCCs) that contain the 74 SWBs. Then to access the MCCs, WCS would use heavy equipment (e.g., back-hoe, dump truck) to remove the bulk of the sand layer covering the MCCs. After negative confirmatory radiation surveys, WCS would remove the remaining sand around the MCC lids by hand. As the MCCs are exposed, WCS would also perform inspections and radiation surveys of the exterior surfaces of the canisters. If the survey results are favorable, WCS next would remove the MCC covers, and perform another radiation survey of the exposed surfaces. Should the radiological surveys reveal contamination, WCS would halt excavation of the MCC and determine next steps pursuant to the draft Documented Safety Analysis in the WCS request.

Once the MCC lid is removed, WCS would take the temperature of the pea gravel within the MCC. Temperatures above 37.8 degrees Celsius (100 degrees Fahrenheit) would be considered for additional monitoring, with temperatures above 57.2 degrees Celsius (135 degrees Fahrenheit) indicating that an exothermic reaction could be occurring. WCS next would check for the presence of water above the level of the pea gravel within each MCC. WCS would remove any water found and take it to the WCS TSDF to be sampled, treated, and disposed as appropriate.

With these activities completed, WCS would remove the MCCs from the FWF disposal cell, one at a time, using Kalmar lifting and handling equipment that has been specifically adapted to WCS's needs. With the MCC lid removed, the Kalmar connects to the MCC via lifting cables that attach to the interior rim of the canister. The Kalmar then would transport each MCC to the top of the FWF disposal cell, where the MCC would be loaded on a Goldhofer remote-controlled transport trailer for transfer to the BSA-1 Enclosure. The Goldhofer can transport two MCCs at a time. The MCC lids would be replaced for the transfer.

In the draft Documented Safety Analysis provided in WCS's request, the WCS

TSDF BSA-1 Enclosure would be the primary control measure and barrier in the event of an unlikely release of radioactive material once the material is emplaced there. As such, it is an enclosed containment structure equipped with a high efficiency particulate air (HEPA) ventilation system to maintain the structure at a negative pressure and with a Heating, Ventilation, and Air Conditioning (HVAC) system to keep the Enclosure temperature-controlled during the movement, inspection, and handling of the SWBs and material within. To meet these needs, WCS would construct a polyvinyl chloride Architectural Membrane Tent within the WCS TSDF; the Bin Storage Area 1 Enclosure.

On arrival at the WCS TSDF BSA-1, WCS would either (1) move the Goldhofer into the Enclosure or (2) move each MCC from the Goldhofer to another WCS vehicle and move that vehicle into the Enclosure, where continuous air monitors would be used to sample the air. WCS again would remove the MCC lid, and a vacuum system equipped with a HEPA filtration system would be used to remove the pea gravel and any water found in the MCC.

WCS would sample the sand removed in the FWF from around the MCCs, any water found within an MCC, and the pea gravel removed from the MCCs. Depending on the sampling results, WCS would either dispose of these secondary wastes in the onsite RCRA Subtitle C landfill, if appropriate, (the water would need to be solidified before doing so) or request TCEQ approval for disposal in the FWF.

As the SWBs within the MCC are exposed, WCS would perform a visual inspection for any damage or defects and check the temperature of the SWB for elevated readings. Once the pea gravel has been removed to the extent practicable around the top tier of SWBs, WCS would replace, as needed, the original lifting straps that had been used to emplace the SWBs in the MCC with new straps. WCS would next remove the SWBs in turn from each MCC, using a hoist in the overhead gantry system and then move them to a temperature-controlled laydown area where they would be radiologically surveyed and inspected. In the laydown area, WCS would replace and/or add, as needed, the filter vents on each of the SWBs. WCS would also conduct a

borescope inspection of the SWBs through a filter hole and take air samples from the head space within the SWB during the borescope inspection.

## **II. Environmental Assessment**

### *Description of the Proposed Action*

The proposed action is whether to grant the WCS June 30, 2022, request to modify the conditions of the 2014 Order to reflect the actions WCS would take in moving the LANL Waste from temporary storage at the FWF disposal cell to temporary storage in the WCS TSDF BSA-1 Enclosure, preparing the LANL Waste for DOE shipment off the WCS Site, and storing the LANL Waste in the WCS TSDF BSA-1 Enclosure until it is shipped offsite.

### *Need for the Proposed Action*

WCS is making this request so that a new superseding Order to WCS would reflect the actions that WCS would take to move, prepare for shipment, and store the LANL Waste at a different location at WCS.

The purpose of this EA is to assess the potential environmental impacts of the proposed WCS actions. This EA does not approve or deny the requested action. A separate safety evaluation report is being prepared in support of the NRC's consideration of this action.

### *Environmental Impacts of the Proposed Action*

The NRC does not expect significant changes in radiation hazards to workers as the MCCs containing the LANL Waste are exposed in the FWF disposal cell and then moved from the FWF disposal cell to the WCS TSDF BSA-1 Enclosure and as the SWBs are removed from the MCCs and placed in temporary storage in the BSA-1 Enclosure. WCS has in place a Radiation Safety Program to ensure every reasonable effort to maintain exposures to radiation from occupational exposures is as far below the dose limits as is reasonable (Radiation Safety Program), and that program serves as a primary confirmation of the adequacy of the active operational controls and the passive engineering controls for monitoring and prevention of releases. For example, during the

proposed activities to move the LANL Waste from the FWF disposal cell to the WCS TSDF BSA-1 Enclosure, WCS would conduct radiological surveys and inspections to protect workers and to keep potential doses as low as reasonably achievable (ALARA). Further, the LANL Waste at the WCS Site is subject to WCS's material control and accounting and security programs that the NRC staff has previously evaluated and found adequate to protect against nuclear criticality, or material theft or diversion.

If the WCS exemption request is approved by the NRC staff, then the NRC would issue a new order that would supersede the 2014 Order. In the new order, Conditions 1 through 7 would remain the same as in the 2014 Order, new Condition 8 would be created to reflect the NRC letters to WCS from 2016 to 2022, Conditions 8.A. and 8.B. from the 2014 Order would be renumbered as new Conditions 9.A. and 9.B reflecting the NRC letters to WCS from 2016 to 2022, and a new Condition 9.C and 9.D would be added to address WCS's exemption request. The new Condition 9 would apply to the LANL Waste stored in either the WCS TSDF or the FWF disposal cell. Conditions 9, 10, and 11, respectively, in the 2014 Order would be renumbered as Conditions 10, 11, and 12, respectively, in the new order. WCS would continue to be permitted to possess SNM at the WCS TSDF that meets the same concentration limits and controls.

The NRC staff finds that the proposed action would result in minor transportation impacts because movement of the LANL Waste from the FWF disposal cell to the WCS TSDF BSA-1 Enclosure would be restricted to the WCS Site and would involve the use of on-site equipment (e.g., the Kalmar and the Goldhofer). In the draft Documented Safety Analysis in its request, WCS also stated that it would not allow other traffic to occur on the route from the FWF disposal cell to the WCS TSDF BSA-1 Enclosure while the MCCs are being moved.

The NRC staff considers impacts to other resource areas to be minimal. Vehicle exhaust and fugitive dust from the equipment used to remove the existing sand cover for the MCCs and to transport the MCCs from the FWF to the WCS TSDF BSA-1 Enclosure would be short term and limited to the WCS Site. As a result, air quality impacts and

visual impacts would be minimal. Noise associated with operation of this equipment would also be short term and limited to the site. Given WCS's activities under the proposed action, the NRC staff considers that there would be no impacts to land use, geology and soils, surface and ground water resources, ecological resources, or socioeconomics. Additionally, given the expectation that minor impacts would be limited to the WCS Site, the NRC staff concludes that there would be no disproportionately high and adverse impacts to minority or low-income populations.

The NRC staff recognizes that the DOE would be transporting the LANL Waste from the WCS Site by truck to another location, currently expected to be either LANL or to WIPP. LANL is located in northeastern New Mexico approximately 587 kilometers (365 miles) from WCS, while WIPP is located southeast of Carlsbad, New Mexico, approximately 121 kilometers (75 miles) from WCS. The material would be shipped by DOE from the WCS Site once the material is approved for transport in accordance with U.S. Department of Transportation regulations.

#### *Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the NRC staff considered denial of the WCS's June 30, 2022, request and not authorizing the requested activities. Under that alternative, WCS would continue to store the LANL Waste in the FWF disposal cell and not move it to the WCS TSDF BSA-1 Enclosure. WCS would continue to perform monitoring of the waste in its current storage location in the FWF disposal cell and to perform other aspects of its radiation protection program to keep potential radiological doses to workers and the public ALARA.

Under this alternative, the activities identified in WCS's June 30, 2022, request that are needed to prepare the LANL Waste for shipment by DOE off the WCS Site would not occur. The NRC staff considers it reasonable to expect that DOE and WCS would seek an alternate approach to prepare the LANL Waste for shipment off the WCS Site and to request NRC approval of that approach. Thus, the environmental impacts of the no-action alternative would be very similar to those of the proposed action.

### *Agencies and Persons Consulted*

On March 20, 2023, the NRC staff provided a copy of the draft EA to the TCEQ, for its review and comment. The TCEQ provided its comments on April 12, 2023. The NRC staff updated the EA in response to TCEQ's comments, as appropriate.

The proposed action does not involve the development or disturbance of additional land, as the WCS TSDF BSA-1 Enclosure is within an existing structure. Hence, the NRC has determined that the proposed action will not affect listed endangered or threatened species or their critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. Likewise, the NRC staff has determined that the proposed action does not have the potential to cause effects on historic properties even if present. The LANL Waste stored in the FWF disposal cell would be moved to temporary storage in the WCS TSDF BSA-1 Enclosure using existing WCS Site roads, and no ground disturbing activities are associated with the proposed action. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

### **III. Finding of No Significant Impact**

The NRC has reviewed WCS's June 30, 2022, request for a superseding order. The NRC has found that effluent releases and potential radiological doses to the public are not anticipated to change as a result of this action and that occupational exposures are expected to remain within regulatory limits and ALARA. Based on the EA, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

### **IV. Availability of Documents.**

The documents identified in the following table are available to interested persons through ADAMS.

| <b>DOCUMENT DESCRIPTION</b>   | <b>ADAMS ACCESSION NO.</b> |
|---|----------------------------|
| NRC letter to WCS, Letter to William Dornsife, WCS, from Thomas Essig, NRC, enclosing the | ML030130085                |

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| Order to Exempt Waste Control Specialists, LLC, from Requirements of 10 CFR part 70, dated November 21, 2001.  |             |
| Issuance of Environmental Assessment and Finding of No Significant Impact for Modification of Exemption from Certain NRC Licensing Requirements for Special Nuclear Material for Waste Control Specialists, LLC., Andrews County, Texas, October 14, 2004.           | ML043020614 |
| Issuance of Environmental Assessment and Final Finding of No Significant Impact for Modification of Exemption from Certain NRC Licensing Requirements for Special Nuclear Material for Waste Control Specialist, LLC., Andrews County, Texas, dated October 7, 2009. | ML092460509 |
| Issuance of Environmental Assessment and Finding of No. Significant Impact for Modification of Exemption from Certain NRC Licensing Requirements for Special Nuclear Material for Waste Control Specialist, LLC Andrews, dated October 30, 2014.”                    | ML14238A208 |
| NRC letter to WCS, “Response to Request for Possession Time Extension in the U.S. Nuclear Regulatory Commission Exemption Order Condition 8.B.4 at Waste Control Specialists LLC (CAC No. L00904),” dated September 23, 2016.  | ML16097A265 |
| NRC letter to WCS, “Closeout of NRC Review of WCS Exemption Request dated December 4, 2014 (CAC NO. L00904),” dated September 26, 2017.  | ML17234A415 |
| NRC letter to WCS, “Response to the August 30, 2018, WCS Request to Extend the Possession Time in the NRC Special Nuclear Material Exemption Order Condition 8.B.4 to WCS,” dated December 19, 2018.   | ML18269A318 |
| NRC letter to WCS, “Response to the August 24, 2020, WCS Request to Extend the Possession Time of LANL Waste in the Exemption Order Condition 8.B.4 until December 23, 2022,” dated December 7, 2020.  | ML20252A182 |
| NRC letter to WCS, “Response to the March 18, 2022, WCS Request to Extend Possession Time of LANL Waste in the Exemption Order Condition 8.B.4 until December 31, 2024,” dated June 8, 2022.   | ML22094A131 |
| WCS request, “2022b-06-30-2022 Public WCS Request for Superseding NRC Order for SNM,” dated June 30, 2022.   | ML22200A046 |

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| NRC note to file, "Summary of NRC Clarification Calls with WCS," dated September 14, 2022. | ML22257A219 |
| NRC email to TCEQ attaching Draft EA for review and comment, dated March 20, 2023.         | ML23129A311 |
| TCEQ email to NRC providing comments on Draft EA, dated April 12, 2023.                    | ML23129A263 |

**Dated:** May 15, 2023.

For the Nuclear Regulatory Commission.

**Robert Sun,**  
*Acting Chief,*  
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